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FLOW RESEARCH

AN IDEA NETWORK COMPANY

Market Barometer is the component of Worldflow that focuses on the flowmeter industry. Every quarter, the Barometer shines its spotlight on the flowmeter industry, looking for important events to discuss or highlight.

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We find the events, report them, and place them in the context of the flow industry. The Market Barometer explains and interprets the importance of new products, new technologies, mergers, and acquisitions. We give you the information and ideas you need to generate forecasts, make budget decisions, and implement winning strategies.

Market Barometer: A Preview

Mission: The mission of Market Barometer is to help our readers become better informed about the flowmeter marker. We hope to achieve this mission both by keeping you up-to-date on recent developments in the industry, and by interpreting these developments in light of the data we have on the flowmeter industry. So we not only tell you what happens, we also tell you what it means.

The Market Barometer divides the flowmeter market into a collection of six components. We focus on each of these components individually, reporting on and interpreting developments relative to each component. We also tie these components together to weave a picture of the total flowmeter market.

Here are the components of the flowmeter industry that Market Barometer focuses on:

- I. In the News
- II. Products
- III. Technologies
- IV. Companies
- V. Distribution Channels
- VI. Strategies
- VII. State of the Industry Report

Two other components of the flowmeter industry are so important that they have their own Quarterly Reports. These include the process industries that are the enduser industries for flowmeters. The Process Industry Monitor, another in the Worldflow series of Quarterly Reports, covers these industries. The other is the endusers of flowmeters. The User Perspective, also Worldflow Quarterly Report, covers issues relating to endusers of flowmeters.

In the news

In the News reports on news about the flowmeter industry. This can include new products introduced, mergers and acquisitions, and new regulations announced, announcements of approvals from the oversight groups such as the American Gas Association (AGA). Planned topics:

- Panametrics introduces a new clamp-on ultrasonic flowmeter (explored in more detail in Products section)
- Rosemount 3051S: a new pressure transmitter (explored in more detail in products section)
- Honeywell appoints a new chairman
- Burkert introduces a new line of positive displacement flowmeters
- [Unnamed company] discontinues further development on its ultrasonic, magnetic, and vortex flowmeters

Products

This section focuses on new products being introduced by flowmeter companies. Articles highlight the background of the product, important information about the company making the product, and discuss how the product fits into the marketplace from a strategic point of view.

Articles scheduled for the first issue include:

- Panametrics' new GC 868, an ultrasonic clamp-on flowmeter for measuring the flow of natural gas.
- Rosemount/Emerson Process' new 3051S pressure transmitter. The stability and accuracy values of the 3051S are substantially greater than those of previous models of the 3051.
- An article on a flowmeter from Foxboro (details are forthcoming).
- Yokogawa's digital YEWFLO vortex flowmeter
- Danfoss' USM II bus communication platform.

Technologies

This section looks at the flowmeter market from the perspective of flowmeter types. It highlights any important developments in each flowmeter type. These include new products introduced, mergers and acquisitions, alliances, and other developments that apply to a specific type of flowmeter.

This section is divided into two parts: new-technology flowmeters and traditional-technology flowmeters. Each section begins with an overview and an update.

Technologies

New-technology flowmeters

Where is the new-technology flowmeter market today? Where is it headed? Where is it winning the battle against traditional-technology meters? Where are new-technology flowmeters competing against each other?

Coriolis

- Covers new developments in approvals for the use of Coriolis flowmeters for custody transfer of natural gas
- Looks at the straight-tube Coriolis flowmeters on the market: who has them and what are their advantages and disadvantages?
- What is the impact of the new low-cost Coriolis flowmeters on the Coriolis market? Both Micro Motion and Endress & Hauser have introduced Coriolis flowmeters in the \$3,000 price range.

Magnetic

- Looks at pulsed DC technology as a solution to the problems of AC technology
- Insertion magnetic meters

Ultrasonic

- Looks at the ultrasonic market for measuring natural gas flow: how do Instromet, Daniel, and FMC stack up? Are there any new players?
- Discusses the large number of suppliers of ultrasonic flowmeters. Is the market ready to consolidate?
- How accurate can ultrasonic clamp-on flowmeters be? Controlotron's "clamp-on inline" flowmeters
- Panametrics GC868 ultrasonic clamp-on gas flowmeter
- D-Flow's "sing-around" ultrasonic transducers

Vortex

- What are the barriers to the growth of vortex flowmeters?
- J-Tec's new vortex flowmeter
- Yokogawa's digital YEWFLO flowmeter

Multivariable DP

- ABB's multivariable DP recently introduced into the United States
- Growth prospects for multivariable DP transmitters

Technologies

Traditional-technology flowmeters

This section is an overview of traditional technology flowmeters:

Differential pressure (includes primary elements)

- Racine Federated's purchase of Preso Meter
- Rosemount's new 3051S pressure transmitter (also covered elsewhere)
- Foxboro's low-cost pressure transmitter
- A review of primary elements

Positive displacement

- Kral reaches into the United States
- Burkert's new positive displacement flowmeters

Turbine

- Hoffer Flow Controls' new ceramic bearings, breathing new life into its turbine meters
- Turbines for natural gas flow measurement
- Brooks turbine flowmeters now sold by Daniel

Open channel

• Accusonics' open channel flowmeters

Thermal

• Two markets: Mass flowmeters vs. mass flow controllers

Variable area

Where are variable area flowmeters used today?

In-depth look

This section also takes an in-depth look at two flowmeter technologies. In the first issue:

- Closeup: Ultrasonic flowmeters
- This in-depth look includes discussion of the following topics:
- Why are ultrasonic flowmeters the fastest-growing flowmeter?
- With over 50 suppliers, is the ultrasonic flowmeter market ready for consolidation?
- Which segments of the ultrasonic flowmeter market are growing fast, and which are not?
- What's happening with Doppler flowmeters?
- Closeup: Positive displacement (PD) flowmeters. What industries and applications are they used in?

Companies

This section highlights new developments in flowmeter companies. It includes reports on alliances, partnerships, reorganizations, annual reports, and other events of importance. Companies reported on include all flowmeter companies, both new-technology and traditional-technology companies.

Companies included in the first issue

- Fisher-Rosemount becomes Emerson Process
- Honeywell's new boss: David Cote
- Invensys reorganizes: What is their strategy?
- Thermo Electron and Thermo Measurement: An emerging giant

It also takes a more in-depth look at selected flowmeter companies. The in-depth looks will analyze strategies, product offerings, strategic positioning, alliances, and other important developments relating to flowmeter companies.

Closeup: ABB. The first issue of Market Barometer takes an in-depth look at ABB. ABB is a complex company that has purchased many other flowmeter companies. In this article, we look at the acquisition path that ABB has followed and some of the companies purchased. We also look at the recent loss reported by ABB in their last annual report. We ask, what strategy is ABB following in instrumentation and is it working for them?

Closeup: Krohne. This issue also takes a look at Krohne. Krohne is a European company that has grown by developing its own products. Krohne begin in 1921, manufacturing variable area flowmeters. Today, Krohne is a major power in magnetic flowmeters, and is making a move to become a leader in the ultrasonic flowmeter market. How has Krohne developed into a worldwide instrumentation company? What are the challenges the company faces as it seeks to expand its customer base?

Distribution channels

This section looks at questions relating to distribution channels. It also highlights any important developments in flowmeter companies relating to distribution channels. For example, sometimes companies reorganize their distribution channels, or start using distributors where previously they only used reps. These developments will be reported here.

Some other questions discussed include:

- How effective is selling instrumentation on the Internet, and what are the implications for reps and distributors?
- What is the best strategy for marketing in foreign countries (e.g., using reps, distributors, remote assembly, etc.)
- What tools do companies, reps, and distributors need for selling effectively? (e.g., informational material, application knowledge, etc.)

This section also contains a section listing distributors looking for suppliers, and suppliers looking for distributors. Under Flow Research's Product Line Expansion Service (PLES), both suppliers and distributors are signing up to get matched. This section lists the characteristics of some of the companies looking for partners.

Strategies

This section looks at strategies that suppliers and distributors can follow to expand their markets. Strategies discussed include broad-line strategies such as forming alliances and offering a wide range of products to strategies specific to types of flowmeters.

In the first issue, we have three articles on strategies. One article takes a look at all the different ways that companies can align themselves with each other. These include:

- Alliances
- Partnerships
- Private labeling
- Reselling
- Acquisitions
- Holding companies

This article discusses some of the advantages and disadvantages of each of these types of relationships. Subsequent issues of the Barometer will take a more in-depth look at each of these different methods. Coming in the second issue: Acquisitions.

The second article is entitled "The Quest for Market Position." This article compares two ways to increase market position: by internal development and by acquisition. It looks at some of the advantages and disadvantages of each method, and discusses when each is preferable.

The third article is entitled "Brand Name Strategies." It looks at some of the general elements that make up brand equity in familiar areas outside the instrumentation industry. It then applies these insights to the instrumentation industry.

"Brand Name Strategies" specifically looks at two different models that companies follow when making acquisitions. Some companies acquire a company and keep the brand names of the acquired company, while integrating the new products into the other hand, if an acquired the existing product set. This is the model followed by Emerson and FMC Energy Systems.

Other companies acquire another company and drop the existing brand names in favor of the brands of the acquiring company. They also integrate new products into the existing product line, but under the existing company brand names. This is the model followed by ABB and Siemens.

These are really two different paradigms involving how to treat the brand names of acquired companies. There is no simple right or wrong answer about which method is better. For example, if the acquiring company has a brand name with more brand equity than the acquired company, this is an argument for using a new name. On company has a brand with a great deal of brand equity, then this is an argument for keeping the original brand name. This is the case, for example, with FMC Energy System's purchase of Smith Meter. Smith has been in the turbine and positive displacement (PD) flowmeter business for 65 years. The name Smith has a great deal of brand equity for turbine and PD meters, and FMC has kept the name.

tages and disadvantages of these two paradigms, and discusses how effectively these

different paradigms have worked for the respective companies. It also looks at situations where each paradigm is the one to follow.

The Third Way. In addition to the above two paradigms, this article discusses a model that represents a middle path between them. Thermo Electron provides still another model for dealing with brand names. Thermo Electron allows each company to keep its own name, and also keeps the brand name of its products. However, the company prefixes each acquired company name with the name 'Thermo.' This results in company names such as "Thermo Polysonics" and "Thermo Brandt Instruments." This is This article looks at the advan-somewhat similar to the route being followed by Emerson with the development of Emerson Process Management.

State of the industry report

In this section, Dr. Jesse Yoder writes a report on the state of the flowmeter industry. This report draws on the following elements:

Reports that occur elsewhere in the Barometer

- The over 3000 pages of new-technology flowmeter studies prepared by Flow Research
- Ongoing research in traditional-technology flowmeters
- Current discussions with principals in the flowmeter industry
- Strategies to help companies both large and small gain market position

The State of the Industry report integrates these elements into a picture of the flowmeter industry. It highlights growth areas, puts new product developments into perspective, and focuses on new and emerging companies. State of the Industry puts it all together into a single picture of the flowmeter industry as it stands today.